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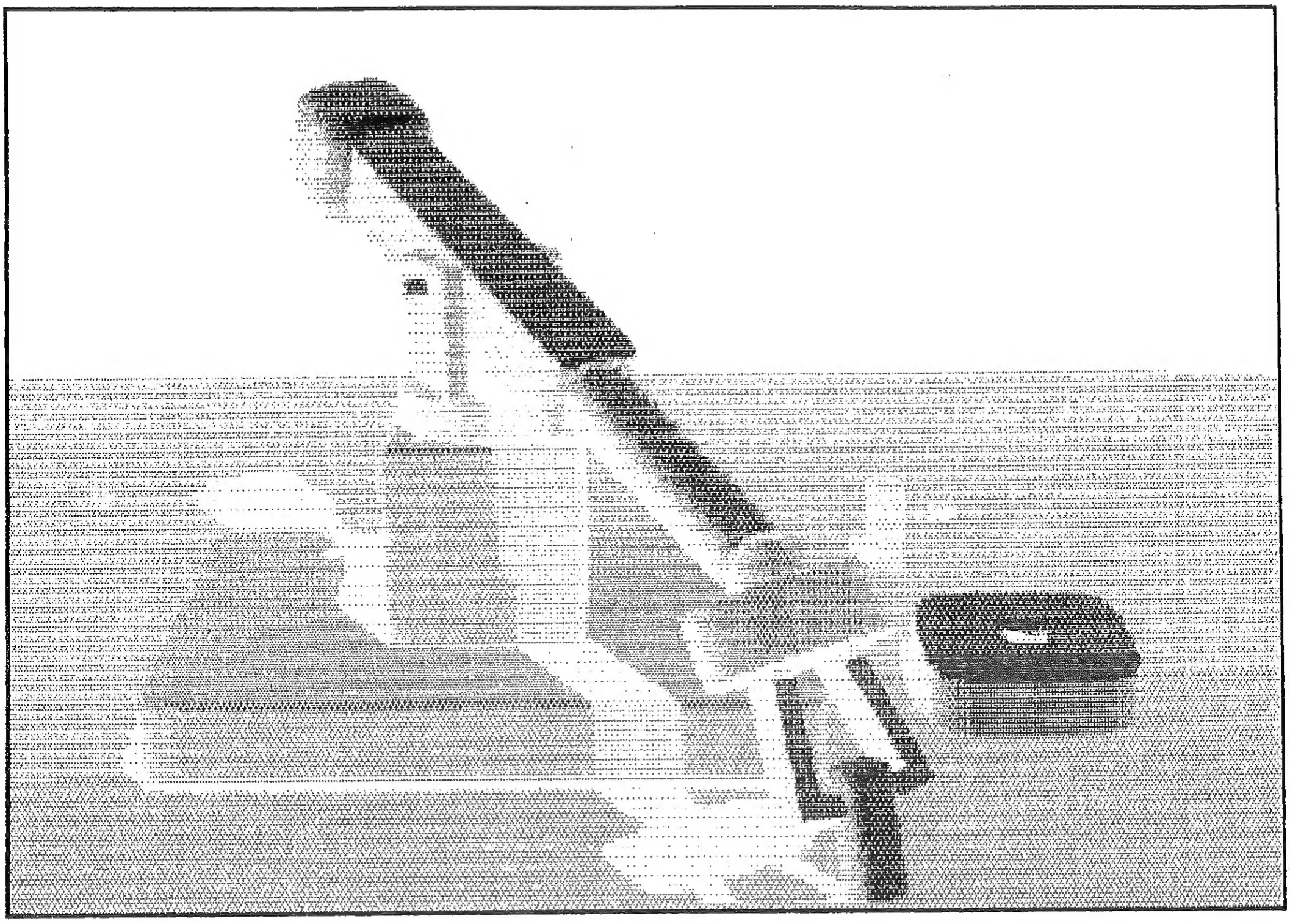

Next Meeting

Annual General Meeting

Sunday, July 12th, 1987 at 2pm

AUG meetings are held at Victoria College, Burwood Campus
in Lecture Theatre 2. Melways map 61 reference B5.

Amiga Users Group, PO Box 48, Boronia, 3155, Victoria, Australia

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AMIGA™ Users Group

The Amiga Users Group is a non-profit, self-help group, made up of people interested in the Amiga computer and related topics. The Amiga Users Group is the largest independent association of Amiga users in Australia.

Club Meetings

Club meetings are held at 2pm on the second Sunday of each month at Victoria College, Burwood Campus, in Lecture Theatre 2. Details on how to get there are on the back cover of this newsletter. The dates of the next few meetings are:

Sunday, July 12th at 2pm
Sunday, August 9th at 2pm
Sunday, September 13th at 2pm

Production Credits

This month's newsletter was edited by Peter Jetson. Equipment and software used was: TurboDOS S-100 computer, Brother HR-40 printer, Gemini 10x printer, Wordstar, Fancy Font and Grabbit.

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Contributions

Articles, papers, letters, drawings and cartoons are actively sought for publication in Amiga Workbench. Please submit your contributions on disk, since that means they don't have to be re-typed! All disks will be returned! Please save your article in **text-only** format (If it can be loaded by ED, it is text-only). Absolute deadline for articles is 16 days before the meeting date. Contributions can be sent to: The Editor, AUG, PO Box 48, Boronia, 3155.

Membership and Subscriptions

Membership of the Amiga Users Group is available for an annual fee of $20. To become a member of AUG, fill in the membership form in this issue (or a photocopy of it), and send it with a cheque for $20 to:

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Public Domain Software

Disks from our public domain library are available on quality 3.5" disks for $10 each including postage on AUG supplied disks, or $2 each on your own disks. We can also provide 80 track 5.25" Amiga format to special order. Please enquire. The group currently holds over 100 volumes, mostly sourced from the USA, with more on the way each month. Details of latest releases are printed in this newsletter, and a catalog disk is available.

Member's Discounts

The **Amiga Users Group** negotiates discounts for its members on hardware, software and books.

Currently, **Technical Books** in Swanston Street in the city offers **AUG** members a 10% discount on computer related books, as does **McGills** in Elizabeth Street. Just show your membership card. Although we have no formal arrangements with other companies yet, most seem willing to offer a discount to AUG members. It always pays to ask!

Back Issues of Newsletter

Unfortunately, few back issues of this newsletter are available. Contact the membership secretary for details on which issues are still available.

Even though we print many extra copies of the newsletter each month, eager new members seem to snap them up. We intend to publish yearbooks, in which we will reprint all articles during the preceeding year. Price and availability will be announced in the newsletter, and the yearbooks will be available by mail or at meetings.

AmigaLink - Our Bulletin Board System

The Amiga Users Group operates a bulletin board system devoted to the Amiga, using the Opus message and conferencing system. AmigaLink is available 24 hours a day on (03) 792 3918, and can be accessed at V21 (300bps), V22 (1200bps) or V23 (1200/75bps), using 8 data bits, 1 stop bit and no parity.

AmigaLink is part of the world-wide Fido/Opus network of bulletin boards, and we participate in the national and international Amiga conferences. AmigaLink has selected Public Domain software available for downloading, and encourages the uploading of useful public domain programs from its users. AmigaLink is FidoNet node number 631/324.

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AC/BASIC - A First Look

by Bernd Kuenne

AC/BASIC by Absoft Corporation, $399-95 from Maxwells (I got a 10% discount with my AUG membership card)

This is a brief first look at the AC/BASIC package. It is not all full scale review because I haven't had time to learn enough about it for that.

AC/BASIC is a compiler for the Amiga that is specifically designed to take AmigaBASIC programs as its input. The programs must, however, be saved as ASCII files rather than the compressed format normally used by AmigaBASIC. This is really no problem and has the advantage of allowing any text editor that outputs straight ASCII files to be used for program development.

The package consists of one diskette and a reference manual of about 300 pages. The diskette is not copy protected and does not require a dongle to operate. Absoft has taken the sensable approach of encouraging people to make a working copy of the disk and store the original in a safe place. Not being copy protected in any way means the compiler is also easy to install on a hard disk, simple instructions for this are included in the manual.

There are a few differences between the compiler and the AmigaBASIC interpreter. For the most part these are simply due to the fact that some commands do not apply in a compiler environment, eg. LIST, LOAD, CONT etc. There are a number of other differences but mostly these are minor and I've only had one program not compile properly first try, the "balls" demo from the Extras disk. (It has some sub programs in the middle of the source.)

The most important differences between the compiler and the interpreter are:

- all sub programs must be physically at the end of the program.
- DEF type and DEF fn statements are processed in the order they appear in the source file, moral - put them at the start of the program.
- arrays are limited to seven dimensions, AmigaBASIC allows 255.
- AC/BASIC allows static arrays as well as the usual dynamic arrays.
- AC/BASIC allows a SELECT..CASE structure.

AC/BASIC uses a technique similar to the "active remark" statements used by TASC (Applesoft compiler for the Apple II) to allow the development of programs that will run under the interpreter but still take advantage of the compiler features.

How easy is it to use AC/BASIC? I found it a very easy package to use, it comes with fairly clear instructions and is nowhere as complex to use as some other compilers I have used. Mostly you just have to invoke it from either the workbench or CLI, use a pull down menu to give it a file name and then let it rip. AC/BASIC compiles and links automatically, saves the output to disk and even gives it icon so it can be run from the workbench. The compile speed is also good, in the order of hundreds of lines per minute.

Programs compiled by AC/BASIC use a runtime library which they can load automatically at run time or it can be linked in at compile time to make completely stand alone programs for "turnkey" operation.

Lastly the obvious question, how much faster will the programs run? Absoft claims on the packaging that they can be up to fifty times faster. I personally doubt that even their salesmen believe that one! The tests I have run to date come out at about a three to five times faster. This may not sound like much but it really is noticable. Programs seem to fly along and those annoyingly slow text screen updates become almost too fast to see.

Do I think it is a worthwhile purchase? In a word - yes. AmigaBASIC is a much easier language to program in than C. Developing programs under an interpreter makes debugging easier than under a compiler and BASIC, as implemented in AmigaBASIC anyway, is capable of handling serious work. AC/BASIC now makes it possible to compile your completed programs for an extra burst of speed and, most importantly, get rid of that interpreter at run time when it's just a pain and eats valuable memory.

This has not been an exhaustive treatment of AC/BASIC. I haven't tested it thoroughly yet and there are a number of areas I haven't even tried out much less covered here. When I get the time to really put it through its paces I'll write a follow up if someone else hasn't already done it.

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Review of the PAL Jr.

by John Herks

I just purchased a PAL Jr expansion unit from the USA, and decided I should write this article and tell Amiga users about the product.

The PAL Jr is sold by the Byte By Byte Corporation in Austin, Texas. The unit sells for US$1495. When I paid for the unit with credit card, it ended up costing me $2196 Australian. Shipping was US$100 via federal express.

It took four days to arrive in Australia from the USA after dispatch, and a further two days for the customs agents to get it through customs. Then I had to pay the customs agent $585 (COD) for the import duty (2%) and sales tax (20%).

The unit comes in a metal case that has been sprayed in the Amiga beige type color. This unit (18 cms tall) then sits on top of your Amiga and then you can place the monitor on top of it all. With the Amiga on a flat desk, it raises the monitor to a comfortable viewing angle, so the extra height is not a problem.

A "staple-shaped" card is then inserted on the right hand side of the Amiga which connects the PAL Jr's bus to the Amiga's bus.

The unit comes with 1 megabyte of Fast Memory (no wait states), a Real Time Clock with battery backup, two Zorro standard expansion slots, DMA hard disk controller board and a Seagate 20 megabyte Hard Disk Unit.

All this is powered by a switch-mode power supply that is selectable between 115v and 230v via a small jumper wire.

On the back, there is a fuse holder, power input and output sockets (so you can turn on the Amiga at the same time with the PAL Jr's power switch) and a backplane for the two Zorro slots.

One of the Zorro slots is taken up by the DMA Hard Disk controller which is the same board Byte By Byte uses in their PAL unit. This board can control two ST506 devices (maximum of 16 heads) and it also has empty sockets for the SCSI option (US$150) which allows you to control up to eight SCSI devices (CD Rom, Hard Drives, Worm Drives, Tape Units etc).

The whole lot autoconfigures under AmigaDOS Version 1.2, unlike some other expansion devices currently available.

When the system boots up the WorkBench disk, the memory is automatically recognised. You must execute the 'BindDrivers' command to get the system to recognise the hard disk.

If you wish, you can assign the entire hard disk as DH0:, or partition the drive into logical devices (eg DHA:, DHB:, etc) by entering the appropriate items in the mountlist.

Byte By Byte supply a comprehensive HDTest program that is used for low-level formatting of the hard disk.

As for the speed of the hard disk, the advertisment tells the truth - it really is F-A-S-T! The only thing holding back is the structure of AmigaDOS. Tim King is supposed to be working on a Hard Disk version of AmigaDOS, but until that arrives, I am using a program from ASOG (in the USA) that patches into the low-level part of AmigaDOS and improves the buffering etc. It **is** very fast, though!

Since the initial installation, I have added a second hard disk drive (40 Meg) which is just sitting in an external case with its own power supply that just plugs into the second port on the DMA controller board.

In the second Zorro slot, I also have Byte By Byte's gargantuan **eight megabyte** memory board, which uses SIMMS technology memory chips. All together this gives me just over 9 megabytes of memory! [Braggart - Ed] The 1 megabyte internal memory configures at $C00000 which was recently de-allocated by Commodore-Amiga.

The only problem I have had with the unit was a 6116 2k static RAM chip on the hard disk controller board which caused the hard disk to just sti there and spin after BindDrivers was executed.

A quick call to Byte By Byte customer service produced the fix - they had a bad batch of chips (Mostek brand) which where failing after a short period. A quick trip to Radio Parts and I came back with a Hitachi 6116 chip, and installing it corrected the problem. Since then it has been purring away with no hardware or software problems.

The Byte By Byte PAL Jr is a very capable expansion system that adds useful mass storage to the Amiga system. If you need more Zorro slots (I don't - well, maybe for a 68020 board!) then the PAL unit is available, with 7 Zorro slots.

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VIP Memory Tips

by Bob Laidlaw

I have used VIP for many jobs since describing this package in the November 1986 issue of this magazine. The most important group of jobs relate to my personal finances and include various worksheets for personal budgetting, monitoring the performance of selected funds and property, and the final investment portfolio. In addition, VIP has been useful for many database applications. These include a "Teledex" of names addresses and telephone numbers, contents of the wine cellar, and sorting out accommodation in alternative vacation destinations. VIP has a few text editing features, but I prefer to use Textcraft for this purpose as it meets all my requirements, and is so easy to use that it does not obstruct the creative flow.

Memory required

VIP has been bug-free in all applications so far. The only problem with VIP is that it is such a large program at 400K that I have run out of memory on several occasions when setting up large worksheets on my 512K Amiga. This article aims to help you by giving some tips on how this problem can be overcome in many cases without the addition of extra memory.

According to page 110 of the book "All about 1-2-3" by Schware and Trembour (Dilithium Press), Lotus 1-2-3 uses about 87K. Why the difference between two programs that look similar from the user's viewpoint? Is it the programming language, the compiler efficiency, or something else? The memory required to load a program is an important attribute that applies just as much to database and word processing programs. If more memory is used by the program, then there is less space for your work. I have often asked software salespeople how much memory is used by a program but have not yet received a specific answer. This is something that we should be able to solve, as surely every software package has been purchased by at least one AUG member.

Maximise available memory

The first priority is to get as much memory available as possible with the two disc drives needed for convenient operation of an Amiga. This is done by loading VIP from the CLI. My Workbench disc has a start-up file that tells the computer to go straight to the CLI. I take this opportunity to run INFO to ensure that there is enough space for more files, and take corrective action if necessary to avoid a "disk full" message later on. Next, use the mouse to shrink the CLI window as small as possible. This will give you 70K in Version 1.1, and 60K in Version 1.2. So keep and use your V1.1 !!

Worksheet size

You should monitor the amount of available memory while you build a big worksheet. This is done by using the STATUS command. Use this often and you will learn which operations are memory intensive and could result in a bell tone and "out of memory" message. When this happens, press the ESC key and you should return to the previous worksheet status. Do anything else and you will probably go to the Guru and lose everything. Therefore be sure that you have

saved your worksheet to disk, before attempting memory intensive operations such as moving large chunks of worksheet around or copying a formula into 100 cells.

What is a big worksheet? Texts on Lotus and VIP state that there is a relationship between worksheet design and memory used, but it is a very complicated one, and that experience with the program will serve as a guide. Here are some guidelines based on my experience.

1. Non-numerical databases use about 1 byte per character. For example, my teledex database has 132 printer columns, 230 rows, and is a 30K file. When loaded, there is another 33K available, according to the information given by the Status command. I decided to find out the maximum size database that VIP would accept with an initial 70K, and it was a 57K file. The Sort command worked satisfactorily, taking about 20 seconds to reorganise this 57K file. An important point to note is that the internal memory overhead increases with worksheet size.

2. A typical 32K worksheet file containing numeric data and formulas, has 132 printer columns, 20 worksheet columns and 80 rows. This worksheet is only one-third the number of rows of the 30K database, because formulas use a great amount of memory. The Status command revealed that there was another 11K available, but experience has shown that a minimum of 10K 'headroom' is needed to avoid problems with some operations, so it would be difficult to set up a bigger worksheet of this type with 70K workspace available.

File commands that help save memory

The personal computer revolution started in many of the most conservative Big Blue mainframe establishments by force of upward pressure from people who wanted to use Visicalc on Apple or TRS-80 microcomputers. With only 23K memory available for a worksheet, the users had to conserve memory as much as possible. They found that the Visicalc equivalent of the VIP File eXtract and File Combine commands have several uses in conserving memory. I have found that these methods work well with VIP.

1. Eliminating unnecessary formulas:

It is important to eliminate unnecessary formulas from your worksheet both in the final design and in setting up. You may have copied a formula down a column, for example the 12 week moving averages of a 52 week column of share prices. After that, those moving averages are data that does not need to be re-calculated one week later when adding the price for week 53. You only need a moving average formula in the bottom row (now week 53). Use the File eXtract Data command to store the data without the formulas for the prices and moving averages, then use File Combine to replace the data in the worksheet. Then check whether any remaining formulas can be simplified arithmetically or algebraically, and give the same result. These steps will save much memory locked up in the formulas and save unnecessary calculation time.

2. Rolling an Array:

A similar approach can be used to "roll up" an array or matrix of values. In the example just given, you would probably want to maintain a database of 52 weeks, and update it once a week. Do this by using File eXtract to copy all data except for the top row, and then use File Combine to replace the data one row up. The data that was in the top row will disappear, and the other data rolls up one row. Formulas embedded in the bottom row are left intact and will do their job when the data for the new week is entered from the keyboard into the bottom row. Formulas for performance over various time periods can be placed below the matrix and are not affected by this process. This is a good way to set up rolling plans, budgets and actuals, and monitor the financial markets. I start this updating process by pressing ALT U and my macro does the rest.

3. Moving or copying:

These commands can shift sizable chunks of worksheet around. With large worksheets, there may not be enough spare internal memory for the computer to store them temporarily, and it will display an "out of memory" message. As already described, you should be able to return to the previous worksheet status. You can achieve the same end result by an alternative process. Use File eXtract to temporarily store the part to be moved or copied, and then File Combine to put it into the new location. Then use Delete as required to get rid of any unwanted areas of worksheet.

4. Save and Reload:

After trimming some 'fat' from your worksheet and running Status, you may find that not as much memory has been saved as you expected. Save the entire worksheet file and then Load it again. This gives VIP the opportunity to reconfigure itself internally and take up less memory.

5. Chaining:

If all else fails, consider the possibility of splitting your worksheet into two or more files or modules. Use File eXtract to remove the output from the first module. Through File Combine, this becomes the input to the second module.

Memory Expansion

Now that members of our User Group are manufacturing memory expansion units, we should feel more confident of support if we decide to buy more memory. I was not too impressed by a salesperson who assured me that an expensive imported 512K expansion unit would give space for 500K worksheets. I had heard about chip and fast memory, and that the first additional megabyte would give about half that with VIP, because programs relocate into it. I telephoned Imagineering, the Australian agents for VIP, and asked them to check this point. They talked to an Amiga owner on their Sydney staff who has the extra megabyte, and telephoned me a few minutes later to confirm that his VIP comes up with about half a megabyte available. (This is a good opportunity to thank Imagineering for excellent support.) If one megabyte is not enough, then a two megabyte expansion unit would make one and a half megabytes available for a very big worksheet. Then it would be feasible to use the 8192 row capacity of VIP, with enough columns to do something fairly substantial such as a stock control system for 8000 items. Of course, you will then need a hard disk, and then perhaps a few more megabytes for multi-tasking other programs, all quite feasible with the expansion capabilities of an Amiga!

A Simple Database

These VIP memory tips have made it possible for me to do my work within 512K. The only exception occurred when I was asked to investigate the feasibility of setting up the membership records for a society with 1000 members. There was no way to fit a 250K database into VIP running on a 512K Amiga. However, this is a straight-forward application that only requires a database program with a few basic features. In addition, it should be a small program to conserve memory for a 250K workfile. Dealers stock large intuition based databases with a great variety of features, but these may not leave enough room for a big database file. As these programs cost several hundred dollars, you might be better off to put this money towards extra memory if you already own VIP.

The good news is that there is a simple database available that uses only 55K and costs next to nothing. It is on AmigaLib Public Domain Disk 33, and is called SDB. It originally ran on DEC VAX, and PDP-11 computers at Purdue and Texas Universities. I have made a small scale trial of its basic features and it worked! If you want to try it, print out the 30 page instruction manual from sdb.mem, and run it from sdb.lattice. As with VIP, the field names are used to head up field columns, and there are one row records. It has sorting and selection capabilities, and prints reports of selected fields. The source code is given, so a useful project for our hackers would be to thoroughly test all its features, which appear to include macros and mailmerge facilities, make some improvements without enlarging it above 100K, improve the documentation, and put it back into the Public Domain.

I hope this will help you to achieve your VIP objectives.

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Directory Utilities
An Alternative to Workbench and CLI
by Lester McClure

Have you ever felt that Workbench on the Amiga hides files and programs you know really are on a disk? And perhaps learning and using CLI, especially on a single drive system, is too difficult? There is an alternative, one which I have found to be an ideal compromise between the ease of Workbench Icons and the power and complexity of CLI commands. The program, which is the subject of this article, is "DirUtil". I have used this utility for some time in its various forms and consider it an excellent tool for both novice and experienced Amiga users. It is public domain (or shareware) and provides a set of commonly used disk/file manipulation functions.

Early versions of this program began to appear on Fish disk #35 and are generally attributed to an original version by Chris Nicotra. Enhancements have evolved and public domain versions with source included are on Fish disk #40 and #49 (enhanced by John Widen of Mt. Lawley W.A. - the only mention I have ever seen of an Australian contribution to Fish P.D. disks). The most recent version (known) is DUX5 from Fish disk #67. This version has however gone beyond what I consider a useful utility and is over complicated with features.

The version I prefer and use quite frequently is duIII from our AmigaLink BBS - I haven't yet seen it on Fish disk. This version is shareware and is not supplied with source. The author, Nathan Barber, requests donations and if you like the program enough to send $20 plus a disk he offers machine readable source. More details are contained in his accompanying documentation file.

The Directory Utility program duIII can be run from CLI or from Workbench with the supplied Icon. I have modified my startup sequence to run duIII after loading Workbench and then not ending CLI. This gives me the choice of user interface - Workbench, CLI or Directory Utility with simple mouse selection between them.

The following description applies particularly to duIII but other versions perform basically the same task. I recommend that interested readers investigate the other versions, especially DUX5.

Once started, duIII opens a window on the Workbench screen. The window is fixed in size but has the usual front/back, drag and close gadgets. The window divides into 3 main areas. A section at the left displays file names, highlighting directory (drawers) in colour. At the bottom is an area for status and user entered parameters. The remainder is taken up with labelled gadgets for each of the inbuilt functions. The whole thing is mouse driven and the user simply clicks once with the left button on any of the function gadgets or on the file names shown in the widow.

The supplied documentation describes each of the available functions so I will mention only those I have found to to be particularly useful :-

DF0: DF1: RAM: etc

Clicking on any of these gadgets selects the corresponding device and displays a list of files and directories at the root (top) level of that device. The file display area has a slider gadget to move up and down the list if there is more than 17 entries.

Files or directories are manipulated by clicking on the displayed file name(s) which will then be highlighed to indicate selection. Items can be de-selected by simply clicking on them a second time. The ALL gadget allows selection of all entries, inluding those scrolled out of the current display area. CLEAR will cancel all selected entries.

GETDIR

To get into any directory shown in the file list click on the directory name to select it then click on this gadget. The selected directory will now become the current working area and a list of files will be displayed.

PARENT

Takes you back up one directory level towards the top and displays the file list for the new directory level. Basically the opposite to PARENT.

COPY, DELETE, RENAME, MAKEDIR

Fairly standard file/directory manipulation commands - some require entering a destination file/directory name in the "D" area of the window.

TYPE

The type command is the best text file viewing utility I have seen for the Amiga. Its main advantage over alternatives such as Amigados TYPE or MORE or LESS is simplicity - because it is entirely mouse driven. Simply select the file name (or names) then click on the TYPE gadget and a new window opens with the first 22 lines of the file displayed. Clicking the right mouse button moves you forward in the file one page at a time. Clicking the left mouse button moves you back (towards the beginning) of the file one page at a time. There is a slider gadget at the top of the window which serves the dual purpose of indicating your current position in the file and allowing you to quickly move forward/backward in the file by grabbing the slider bar with the left mouse button. Response to slider movement is after button release and the display can be stepped less than a screenful by clicking in the slider gadget left or right of the current bar position. The display window has the usual front/back gadgets and a close gadget which exits the current file and automatically brings the next file into display if more than one was selected. The current file name is displayed at the top of the window.

HTYPE

The HexType command works in an identical manner to the type command except that the screen display is a hexadecimal dump of the file contents. The format is 20 bytes per display line with the address at the left hand side of the display and the ASCII equivelant character for each byte at the right hand side of the screen. A "." is used to represent anything outside the printable character code range.

This command is very useful for peeking into files that normally sends your Amiga into Norwegian if displayed using the standard AmigaDos TYPE command, eg. .info files and programs.

SHOW

Any IFF format picture can be displayed using this function, LO-RES, HI-RES, or Interlaced pictures are all handled automatically. The picture names are selected first from the file list followed by clicking on this gadget. A picture is displayed until closed by clicking on the invisible close gadget in the top left corner. This will bring the next one into view if more than one was selected.

A slide-show effect can be created by clicking on the SLIDE gadget before SHOW and results in the selected pictures sliding up from the bottom of the screen one at a time. Each one staying in view for approx. 5 seconds before sliding down ready for the next.

RUN

This function is used to run the selected file as an AmigaDos program. Any required parameters can be entered into the "E" area of the window before clicking on this gadget.

Setting Up

As usual with the Amiga, things are easier if you have a second disk drive, however I have successfully set up and run duIII with a single drive system.

First make a copy of the standard (V1.2) Workbench disk. Then free some disk space by discarding something like the "Demos" drawer and copy duIII onto the disk complete with Icon. Now re-boot with this disk and using peferences select Text 80 and save along with any other settings you wish to change.

You now have duIII ready to go - simply double click on its Icon and the DirUtil III window will appear showing the contents (blank) of the RAM: device.

The only problem running duIII this way under Workbench is that the RUN command will not work and results in a visit from the GURU. To overcome this we must go one stage further.

Setting up to use from CLI

First set up a disk as described for use with Workbench then do the following to ensure duIII will run on a single drive system :-

- Use preferences to turn CLI on.
- Move duIII into the system drawer.
- Using CLI and ed change the startup sequence to replace "endcli>nil:" with -

```
copy c/run to ram:
copy c/CD to ram:
path reset RAM: sys:C system
assign C: ram:
cd ram:
run duIII
```

This disk can now be used to re-boot and will provide you with a choice of interface to your Amiga.

- duIII window is active
- CLI is behind
- Workbench is at the back. (you may have to reduce the size of the CLI window to see the disk Icons.)

If you find duIII gets in your way simply click the close gadget and all you need do to start it again is type "run duIII" in the CLI window.

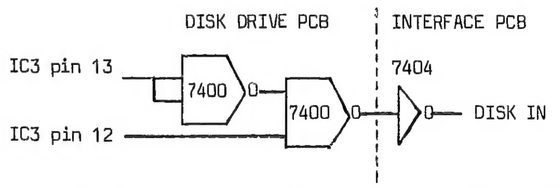
Once duIII is running you can place any disks in either your internal or external drives and begin hunting around - check the CLI window for error messages if things go wrong. The best way to find out how useful this utility can be is to try it out!

Toshiba 5.25 inch Floppy Disk Drive Interface
by Jim Grigg

Having previously owned an IBM PC clone, I had a number of 5.25 inch floppy disks which I wished to use on the Amiga (cheaper than buying 3.5 inch floppies). All I needed was a disk drive; a number of electronic places quoted prices over $200 for an 80 track 5.25 inch drive, and eventually I was able to obtain a Toshiba drive for $160. In total the whole project was built for less than $200.

The circuit from the August 1986 newsletter was used as an interface between the Amiga and the disk drive. The main function of this circuit is to generate a disk change signal, a motor on signal, an indication to the Amiga what type of drive is connected and if a drive is connected. The last two functions are handled via the ready signal. The drive used in the August 1986 article has a 'disk in' signal which is used to indicate whether or not a disk is in the drive. However on the Toshiba drive there is no 'disk in' signal as such, therefore it is necessary to use two other signals and an IC to generate the 'disk in' signal.

The required signals can be found on the disk drive PCB at IC3 pins 12 & 13. See circuit diagram below.



The above circuit will produce the 'disk in' signal when IC3 pin 13 is low and pin 12 is high. This circuit could be simplified to 2 gates by using a 7402, but at the time of construction I did not have any 7402's in my junk box. The 7400 was mounted on top of IC3 piggy back style. An interface (on vero board) was made containing the circuit in August 1986 newsletter. The 7404 is on this interface

board, and is also used to invert the SEL and STEP signals. The connection between the 7400 on the disk drive PCB and the 7404 on the interface board is via pin 2 of the 34 way connector. (Pin 2 is unused)

The only other change was to the RM/DM link; remove the RM side and connect the DM side.

This drive has been working on my system for a number of weeks now with no problems. I also have an external 3.5 inch drive connected, both drives are powered from the Amiga. With three drives on the system, AmigaDos allocates buffer space for three drives resulting in less free memory. I have found some programs that will not run on a 512k system due to this lack free memory. (These programs run perfectly well on a 2 drive system.)

Anyone requiring assistance with this modification can contact me on (03) 741 7024.

Nelson's Column

by Bob Scarfe

I'm a sort of low-level computer user. I love poking around with them but I'm hopeless when it comes to talking about a bootable hyperscrapilater or New Level C Developing Pathname/Siglevel. I really enjoy writing music, making pictures, writing on the word processor and spreadsheet, and getting them to play through my HiFi or magically appearing on my printer, but dropout very quickly when I get into the intricacies of the ramdisk or dumping to the current printerfile subaddress. So I would like to start a column that gives fellow users sort of low level advice and hints, a regular airing of hints to help other users who are running commercial software and can't get it to do what they claim it can, or show examples of things that it will do that is not described in the manual.

For example, it states in rather glowing terms in the DMCS manual the joys of Printing scores on your printer. Has anyone actually done this? The only way to get the Amiga to do printing is via Preferences but DMCS does not seem to have Preferences on the disk. It does not mention Preferences in the manual. I have tried copying Preferences from Workbench 1.1 and 1.2 into the disk but all the program does is load the printer buffer waits a while and the reverts to the program.

On the other hand, there are many interesting things you can do with DeluxePaint 2, that are not spelled out in the manual. For instance John Pullicino showed me one. Many very creative things can be done with Cycle and Blend. First, you set up a Cycle on the White to Black line of the Default Palette (see the Manual if you don't know how to do this). Then, select the biggest circle tool to draw with; you can make it even bigger for a quicker result, (see the Manual again) and choose Cycle (F7), the Freehand Tool and any colour in the line that you cycled, and draw around a bit on the screen. Then choose any other colour and Blend (F6) and a tool like "rectangle". When a rectangle is selected a very interesting effect occurs. It is as if the edges of the drawing becomes colour solarized, as the rectangle cuts across between the grey edges and the black background. This is just a start. Choosing the Airbrush Tool or setting up a colour cycle has similar though different effects. A digitized photo is also good to use when you're stoned!

Has anyone tried to make a SMUSFile on DMCS and loaded it into Pro Midi Studio? Geoff Woods showed me how to get it in there, but when we ran the file it sounded like someone had dragged it into an alley and beaten it up. According to the spiel, it's one of the big selling points. "Mimetics and Electronic Arts Join Forces" said the blurb from Maxwells. A similar point. After buying Pro Midi Studio on the 27th of February, I find that a 1.4 version of this program was released on the 20th February. Is the retailer under any obligation to provide the latest software when it is bought in the store? I mean I purchased it on the understanding that it was the latest program. Why should I have to pay $50 extra to get an update on my outdated purchase?

If anyone is in the same frame of mind as myself and either has found out something interesting about a program that others would like to know or are spending hours tearing their hair out trying to do something that their software is supposed to do, contact me on (03) 376 4143 and I will put it into this column.

Bard's Tale Review

by Nigel Harwood

Introduction

The main reasons that I purchased my Amiga were entertainment and education, in that order.

I have owned three other computers before the Amiga, and I have purchased and played a multitude of games. Of all the different types of games, I find the "Dungeon & Dragons" variety to be the best at keeping my interest over a long period of time, and the Bard's Tale is of this type.

Rather than explain what a Dungeon & Dragons type game is all about, I will assume you know and just mention the features of the Bard's Tale which are notable. If you unfortunately don't know what a Dungeon & Dragons type game is, then buying the Bard's Tale is a good way to find out. You really are missing something.

What You Get

The Bard's Tale runs under Kickstart 1.2 and comes on a single PROTECTED disk; you make up a separate disk to save your games and characters to. This means a bit of disk swapping for single drive owners, although I have heard that someone has managed to squeeze everything on the one disk.

Characters

The game comes complete with a set of characters already created, and these are quite good to start off with as they already have some equipment and experience points. You can of course create your own characters which can be any of the following classes and races:

Races : Human, Elf, Dwarf, Hobbit, Half-elf, Half-ord or Gnome

Classes : Warrior, Paladin, Rogue, Bard, Hunter, Monk, Conjurer, Magician, Sorcerer or Wizard

Your characters have the following attributes and statistics:

Attributes : Strength, Intelligence, Dexterity, Constituition and Luck

Statistics : Armour class, Hit points, Condition, Spell points, Experience points and Gold

If your character is a magic user, he (no female types, a bit sexist) starts off with a few spells, and as he gets more experience points can learn more potent ones, if he can pay the teachers! The spells and magic of the Bard's Tale are one of its best features, there are seventy nine spells to learn in all - everything from "Elik's instant ogre" (great for when guests drop on your doorstep) to "Summon dead".

If you have the gold, any injury can be cured by the monks, even to the point of reincarnation, but that's a bit overpriced.

The Screen

When you play the game, your character's attributes are constantly displayed on the bottom half of the screen, and the view of your surroundings is displayed on the top left. The top right is reserved for the display/accepting of additional information i.e. how badly the kobolds are clobbering Brian the Fist. The view is three dimensional and the graphics are quite good with the buildings and dungeons well detailed.

As you come across monsters and special things, they are displayed in the view window, and some really impressive sights are to be had. Some of the best are the excellent animated displays of the monsters you come across.

One of the best parts of the Bard's Tale is discovering new and more dreadful monsters around each corner. Without giving too much away, I personally think the Zombie is a work of art, complete with blood dripping from its mouth.

Movement

When you place the mouse pointer in the view window in the upper left of the screen, it turns into a directional arrow. As you move the arrow, it points out various directions you can travel: ahead, around corners, into buildings, through doors, etc. You simply click to indicate that you want to go in the direction currently shown by the arrow. You can also control your motion with the keyboard arrows. The display keeps up quite well even with rapid movement.

Sound

The Bard's Tale doesn't use the sound of the Amiga as impressively as it does the graphics, the redeeming point being the sampled sound of monks chanting when you heal some of your very frequent injuries.

Bugs

Yes, the Bard's Tale has at least one bug that I have been unfortunate enough to discover. Sometimes when you are leaving some of the higher level dungeons, you will get an out of memory error. After this has occured you are taken back to the Adventurers Guild, from where you start each session. Here you can at least save your characters, so that all is not lost, but to resume play you must re-run the game. If anyone can help with a fix or explanation of this bug, please let me know.

Conclusion

A great game - 9 out of 10. (1 less for the bug!)

My Thoughts

by James Hovenden

To help our long-suffering editor, I've committed some thoughts to diskette, and here they are:

My $20 investment in an AUG subscription has proven excellent value, as it has saved me $89 so far this year on software and books. No, I am not an accountant! I also have a couple of handy Fish disk programs.

Two weeks ago, I purchased TDI's Modula-2 after reading in April WORKBENCH that a new version 3.00 was coming. The new version has a number of extra features such as screen editor, dissassembler and some minor changes to the modules used to interface with the Amiga software library.

The small ring-bound documentation manual is nicely set out - but because of the minor software changes this book is now slightly wrong. The correct info is supplied on disk though. The screen editor is very basic and doesn't show compiler errors on-screen quite as it is supposed to.

This Modula-2 needs lots of elbow room to do its work. TDI suggest a 30,000 byte stack, but even on some of their demo programs this wasn't enough. Nevertheless the language is usable, which is more than I can say about my attempts to use Lattice C (grrr,snarl). Current price for the Developer's (i.e. useful) version is $275 less your AUG discount...

Apart from a ridiculous AMISOFT "magazine on a disk", my only other recent purchase is PORTAL by Activision. It has a good science fiction plot that has you arriving on Earth after a long space trip to find the place totally deserted - so you set out to find why. You pick up clues by collecting information from various "computers" in an imaginary world network of the future. It's a long story (you get 3 disks!) but not too painful to sit through.

My complaint is that there is no mental challenge or difficulties to overcome (apart from the time required to complete it!). You just select a "computer" and read any files it gives you at the time. The game won't let you continue without reading the files it wants you to. The packaging says "PORTAL - A Computer Novel", so I can't say I was cheated. I think it's a variation on the slogan "What you see is what you get". This program comes under the description "What you see is ALL you get"!

Our First Year

This column would normally be written by the out-going co-ordinator, but seeing as how we don't have one at the moment, the job has fallen on me, the editor.

I first heard about the Amiga was in a product preview in the August '85 issue of Byte magazine. Almost all the "founding members" of AUG are members of Micom, the Microcomputer Club of Melbourne, and at a Micom meeting late in '85, a few of us decided that the Amiga would be our next machine. One or two couldn't wait for the Australian release, and imported their Amigas direct from the USA. Ron Wail was one of those, and I got my first look at an Amiga at his place in January '86. About this time, the idea of a users group entered my mind. I had to wait for the official release in April to get my own machines, and by then I had started the Amiga Users Group.

I arranged our first meeting for June '86, about a week after the PC-86 show, and I had several thousand leaflets printed which Commodore kindly allowed us to distribute from their PC-86 stand. Expecting twenty or thirty people to turn up, I booked a 75 seat hall. If you were there, you'll know that it overflowed, with standing room only! We soon moved to a 200 seat hall, but we're even filling that now. It's hard to believe the group has grown so quickly.

There are many people to "blame" for our success. Neil Murray has done a great job with membership, Geoff Wood runs our book library to perfection and Geoff Shiell and Margaret Bedson are running a tight ship with our public domain software. And who could forget "Drac", our purchasing officer and AmigaLink sysop? Bohdan (Drac) has enabled us to generate enough funds to allow us to continue to expand. The people I've mentioned are the most visible members of the committee, but every one of the people whose names are on the inside front page of this newsletter are responsible for the success of the Amiga Users Group.

Now it is time to hand over the reins of AUG to a new committee. The next few months will see the release of the Amiga 500 and 2000, and with them we have the prospect of many more members.

So, the club's future is now in your hands. If you want AUG to succeed and to continue to grow, nominate for a committee position on July 12th.

Editor's Column

The big news at the moment is the release of the Amiga 2000. Just yesterday, I heard that the 2000 was on dealer's shelves right now! Apparently, although this has not been confirmed yet, the $300 cashback offer is going to be on again soon. Maybe even right now.

Speaking of the 2000, I got an interesting letter from Tony Cuffe, National Product Manager of Commodore Australia a few days ago. As you may remember, I wrote my editor's column a day or so before PC-87 in Melbourne, and I wondered why Commodore wouldn't let Technical Books have a 2000 on loan to display at the show. Tony Cuffe's letter said he was surprised that I might think that the 2000 wouldn't be on show, and that it was on display at the Technical Books stand. In return, I shot a letter back to him pointing out that as anyone who went to the show could tell him, there was no Amiga 2000. In fact, it seems that many people who made trips from interstate for the show were quite disappointed that Commodore wasn't an exhibitor.

Something strange must have been in the air last meeting. A number of the membership forms and disk orders were not filled out correctly. Several people wrote their street addresses and left out the suburb and postcode, a few members just wrote numbers in their disk orders and didn't tell us whether they wanted Fish, Amicus or Amigan disks, and two people didn't sign their cheques. Anyway, most of the mess is sorted out now.

We had intended to publish the financial statement in this issue, but unfortunately time and other work beat us. The statement will be available at the July meeting, and we'll print it in the August newsletter.

We received a letter from a member about the constitution. The constitution is available for perusal at any club meeting, and now thanks to Michael Bednarek, there will be about 50 copies available for interested members at the August meeting. If you can't get to the meeting, you can get a copy by mail. I'm only mentioning this because the question was asked. The constitution is a boring legal document, 20 pages long, and consists entirely of clauses that we are required to have by law. Still, if you want a copy, they are available. They always have been, since that is a condition imposed by the constitution. To date, no-one has wanted one!

Newsletter contributions are at last flowing. I'd like to thank all the new contributors, and I hope they will keep on writing, and that other members will follow their lead.

You've probably noticed, that this month's newsletter looks a little different. AUG has purchased a new daisy wheel printer, a Brother HR-40 from ASP Microcomputers of Malvern who gave us a fantastic deal if we promised to give them a plug. We've also changed fonts - the body of the newsletter is now printed in Quadro at 15 pitch. Previously, we have used 17.2 pitch, allowing 60 characters per line. With the slightly larger font, we now get only 53 characters per line. Great for the eyesight, but unfortunately it means we fit less text onto a page.

Words from the Software Library

by Margret Bedson & Geoff Shiell

After last meetings extraordinary demand when we got orders for approximately 350 disks, we thought it was about time we put our philosophy for copying down in black and white.

We try to do as many disks for as many people as possible while we're at the meeting. Generally we get most disks done at the meeting, usually we only take home orders involving a large number of disks. We make no attempt to do orders in chronological order because its impossible to keep track of who gave what order in when, its bedlam enough. However, all orders were filled and posted by Monday week after the meeting. This took about 8 hours of sitting at the Amiga copying disks plus the time taken to address and post the envelopes.

The general format is:

1. You decide what disks you want preferably prior to the meeting. We have a limited number of printouts for people to browse, or if you have a modem you can download the lists of all public domain disks from our bulletin board.
2. Write down the numbers of the disks you want. PLEASE distinguish between Fish disks, Amicus disks and Amigan disks - we can't second guess what you want and as you can imagine we don't want to waste time recopying disks. We try to supply extra order forms at the meeting if you don't want to cut up your magazine, either that or photocopy the order form.
3. Attend the meeting and drop in your order as soon as possible to give us plenty of time to complete the order. Please try to have correct money as it makes life much easier.
4. PLEASE drop in after the meeting to see if your order is filled. It's particularly annoying to waste precious time at a meeting doing orders for people who can't be bothered finding out if their order has been filled when we could've been filling an order for someone who did drop by.
5. If we can't fill your order at the meeting we'll do it ASAP and post it out to you.
6. Orders can be sent to the post office box and we'll fill them. The time it takes for this to happen is unpredictable because we don't empty the box, so they only get to us about once a week.

On a general note if anyone finds anything they think is particularly wonderful please write down why you like it and give it to us at the meeting. We'll try to start a section of the newsletter on good PD stuff.

Two disks I liked in the new ones we've got are Fish disk 78, with two nice games - Cycles which is a TRON type light cycle game, not much on graphics but great for the reflexes, and EOMS which is a nice commando game, good graphics but don't ask me how to run it I keep getting killed. Appears to not run when conman is being used. The other disk is Fish disk 80, with an update to CONMAN, a few demos and a couple of other things - seems pretty good, read the list in the PD list.

If anyone has enquiries about the PD disks ring us at a sensible hour, we're under Shiell on the list. Sometimes we're hard to get onto, so don't give up easily. We try to check the bulletin board quite regularly so perhaps you can contact us there.

Fish Disk #75

Bezier	- Simple programs to allow you to fool around with Bezier curves, using the mouse to move the points that define the curve and a prop gadget to change the granularity of the curve generation loop. Includes source.
BSplines	- Simple program to fool around with B-SPLINES, ala the Bezier programs described above. Includes source.
Comm	- Source release for comm version 1.34. Last release on disk number 71 was binary only.
Copy	- A replacement for the AmigaDOS copy program that is upwardly compatible, plus includes some new features like date preservation. Version 1.0, includes source.
Diff	- A simple version of diff. Includes source.
DuM2	- A version of the ever popular directory utility (dirutil) but this one is written in Modula 2 and includes source. Dirutil is a program to wander around a directory tree and perform various operations on files. Version 1.5.
Eless	- A faster directory lister, that also sorts entries and displays directories in the current cursor color (ala the Manx "ls" program). Includes source.
Fd	- A modified version of Leo's "eless" that processes an entire track at a time, to minimize rereading of blocks. Includes source.
HardCopy	- A neat little program that creates a hardcopy transcript of any CLI session (like the unix "script" program). Includes source.
MouseOff	- Enhanced and smaller version of MouseOff released on disk number 73. MouseOff will cause the mouse pointer to disappear and then reappear if mouse movement is detected. Includes source.
SetFont	- Program to change the font used by a workbench screen. Version 2.0, source included.
SpeedDir	- Another faster directory lister type program. This one uses the standard dir utility format for displaying directories. Written in assembler, includes source.

Fish Disk #76

This is disk 1 of 2 of Chris Gray's Draco distribution for the Amiga. Draco is a new "systems programming" computer language invented by the author.

Fish Disk #77

This is disk 2 of 2 of Chris Gray's Draco distribution for the Amiga.

takes effect immediately. Includes source.

SharedLib - Working example of how to build a shared library. Includes source.

Task - Simple example of how to use CreateTask. Includes source.

Uw - Unix Windows client for the Amiga. Version 1.00, includes source.

Who - Lists tasks on the ready and wait queues. Includes source.

Fish Disk #80

AmiGazer - Compute a view of the night sky, using a database of 1573 stars, for any date, time of day, and latitude. Click on stars for info about them. Binary only.

CardFile - Study aid card file program written in AmigaBasic. Useful for organizing small blocks of data, such as can be done with a 3X5 card file system. Binary only.

Conman - Extremely useful replacement for the standard console handler, that provides line editing and command line histories completely transparent to any application program that uses CON: windows. Version 0.988, binary only.

IMandelVroom - A slightly modified version of Kevin Clague's mandelbrot program (on disk number 78) that uses his "ring detector" to draw an approximation of the interior strange attractor contours. Binary only (with patches for original source).

NewDemos - Some new demos, including replacements for the standard "lines" and "boxes" demos, that use only a few percent of the CPU time, so it is reasonable to have lots of them running simultaneously to demo multitasking. Binary only.

Othello - Othello game, binary only.

PrinText - Program to display ASCII text files on the screen with scrollbar, arrow gadgets, automatic word-wrap, a search function, speech, IFF picture loading, and online help. Version 1.2, binary only.

in B&W, grey scale, or color, etc. Binary only.

Sizzlers - A series of graphics demo programs. Version 1.7.0, binary only.

Timer - Creates a small window containing a timer. Version 1.5, binary only.

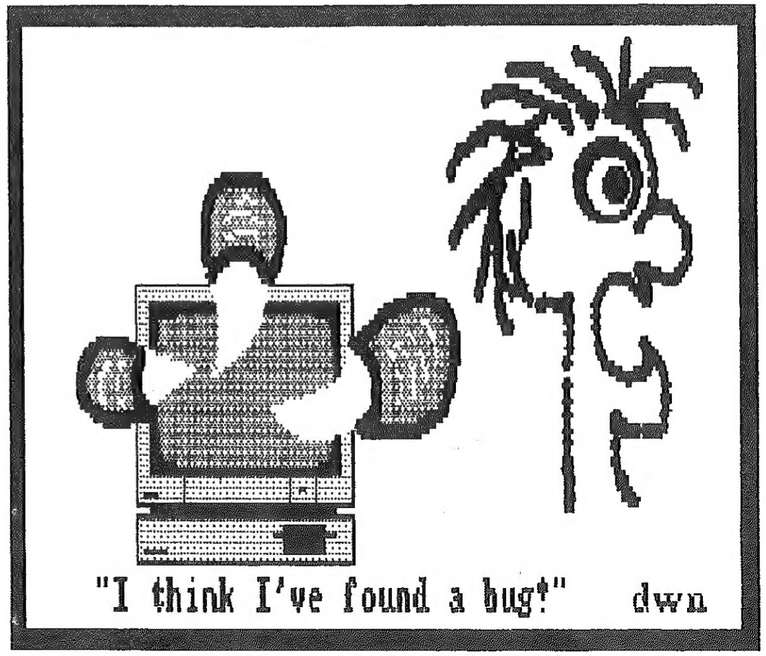
Tools - Some miscellaneous tools, including a memory editor, memory disassembler, ascii chart, and calculator. Binary only.

FOR SALE

A-TIME battery backed clock for Amiga, complete in original box. Plugs into printer port with complete passthrough for printer operation. Has software on diskette and instructions for use. Stop the pain of having to manually set the date and time every time you boot up!

Retails for $160, will accept $80.

Call Bernd Kuenne on 820-1847 (BH) or 729-6396 (AH).



SOFTWARE ORDER FORM

Disk numbers :								

Disks supplied by Amiga User Group @ $10	**$**
Disks supplied by member @ $2	**$**
Club Use Only	
Receipt #: **Mailed on: / /**	**Total $**

Mail to: Amiga Users Group, PO Box 48, Boronia, 3155, Victoria.

Member's Name:

Address:

Application for membership of The Amiga Users Group Inc

Membership is $20 per year. Send your cheque to: **Amiga Users Group Inc. PO Box 48, Boronia, 3155**

AMIGA Workbench
Registered by Australia Post
Publication No: VBG7930
If Undeliverable, return to:
PO Box 48, Boronia, 3155
Victoria, Australia

Postage Paid
Caulfield
East 3145

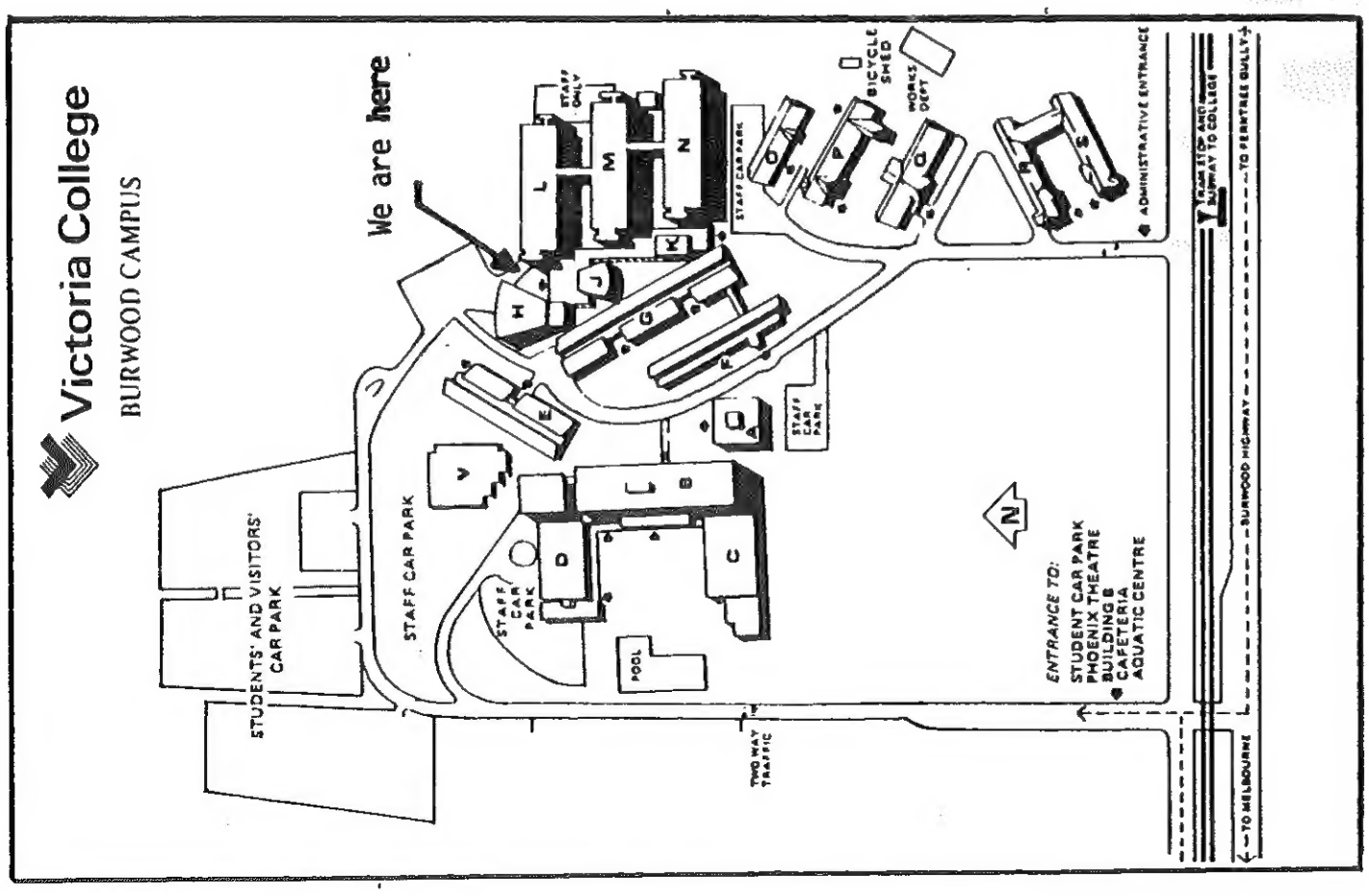
Member #10297 Expires end of 11-87

Campbell Gray
RMIT Comm Eng Dept
Box 2476V
Melbourne 3001

AMIGA™ Users Group

P.O. Box 48, Boronia, 3155, Victoria, Australia

July 1987 Amiga Workbench



Where is Victoria College Burwood Campus?

New members and visitors sometimes have trouble locating our meeting place the first time. Victoria College is on the North side of Burwood Highway, Burwood, just East of Elgar Road. Coming from the City, turn left at the first set of traffic lights after Elgar Road. Follow the road around past the football oval, over three or four traffic bumps to the car parking areas near the netball courts. Further up the road, to the left, you'll find Lecture Theatre 2.

If you have a Melways, try Map 61 B5.